

REMARKS

Upon entry of this Preliminary Amendment, claims 1-18 and 27-38 remain pending in this application. Claims 27-38 are newly added, and claims 19-26 are cancelled. It is believed that the foregoing amendments add no new matter to the present application. Examination, consideration, and allowance of the application and all presently pending claims are respectfully requested.

Response to §103 Rejections

In order for a claim to be properly rejected under 35 U.S.C. §103, the combined teachings of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). In addition, "(t)he PTO has the burden under section 103 to establish a *prima facie* case of obviousness. Furthermore, the Federal Circuit has stated that "(i)t is impermissible, however, to simply engage in hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In re Gorman*, 933 F.2d 982, 987, 18 U.S.P.Q.2d 1885 (1991).

Claim 1

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Taborn, et al.* In rejecting claim 1, it is asserted in the Office Action that

"Taborn et al. disclose in Col. 9 lines 40-47 that during a normalization process, the exponent may have the potential to be overflow or underflow. Therefore, it would have been obvious to a person having

ordinary skill in the art at the time the invention is made to reconfigured Taborn et al.'s invention the underflow computation circuit follow after the computation of overflow circuit because it would enable the system to perform faster by reducing the chance to compute the underflow condition."

See Office Action, page 4, paragraph 4. Applicant respectfully traverses the Office Action assertion that claim 1 is obvious over *Taborn et al.*

Applicant agrees with the Office Action assertion that "*Taborn et al.* do not disclose exponent compare circuitry further configured to compute an actual underflow condition if signal does not indicate overflow is possible." See Office Action, page 4, paragraph 4. However, Applicant does not agree with the Office Action assertion that it is obvious to modify *Taborn et al.* to include such a feature and that such a feature is suggested in *Taborn et al.*

"The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless *the prior art* suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed Cir. 1992). (Emphasis added). "Modification unwarranted by the disclosure of a reference is improper." *Carl Schenck, A.G. V. Nortron Corp.*, 713 F.2d 782, 218 U.S.P.Q. 698, 702 (Fed. Cir. 1983).

Applicant respectfully submits that the alleged motivation for modifying *Taborn et al.* is not found in the prior art but is instead based on impermissible hindsight reconstruction of Applicant's invention. In this regard, there is nothing in the cited art to indicate that it would have been apparent to one of ordinary skill in the art that the system described in *Taborn et al.* would perform faster if the underflow computation followed the computation overflow circuit. Thus, the alleged motivation for modifying *Taborn et al.* is insufficient for establishing a *prima facie* case of obviousness.

Accordingly, Applicant respectfully submits that the 35 U.S.C. §103 rejection of claim 1 is improper and should be withdrawn.

Claims 2-6, 30, 31, and 38

Claims 2-6, 30 and 31 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Taborn et al.* Note that claims 30 and 31 are newly added relative to the application file herewith. However, claims 30 and 31 were formerly claims 31 and 32 respectively, each of which was rejected in prosecution of application serial number 09/507,851. Further, claim 38 is newly added. Applicant submits that the pending dependent claims 2-6 and newly added claims 30, 31, and 38 contain all features of their respective independent claim 1. Since claim 1 should be allowed, as argued hereinabove, pending dependent claims 2-6, 30, 31, and 38 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 7

Claim 7 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Taborn, et al.* For at least the reasons set forth above in the arguments for allowance of claim 1, Applicant respectfully asserts that the rejection of claim 7 is improper and should be withdrawn.

Claims 8-12

Claims 8-12 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Taborn et al.* Applicant submits that the pending dependent claims 8-12 contain all features of their respective independent claim 7. Since claim 7 should be allowed, as argued hereinabove, pending dependent claims 8-12 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 13

Claim 13 is rejected under 35 U.S.C. 103(a) as being anticipated over *Taborn, et al.* For at least the reasons set forth above in the arguments for allowance of claim 1, Applicant respectfully asserts the rejection of claim 13 is improper and should be withdrawn.

Claims 14-18

Claims 14-18 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Taborn et al.* Applicant submits that the pending dependent claims 14-18 contain all features of their respective independent claim 13. Since claim 13 should be allowed, as argued hereinabove, pending dependent claims 14-18 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 27

Newly added claim 27 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Taborn, et al.* For at least the reasons set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the rejection of claim 27 is improper and should be withdrawn.

Claims 28 and 29

Newly added claims 28 and 29 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Taborn et al.* Applicant submits that the pending dependent claims 28 and 29 contain all features of their respective independent claim 27. Since claim 27 should be allowed, as argued hereinabove, pending dependent claims 28 and 29 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 32

Claim 32 is newly added via amendments herein. Claim 32 reads as follows:

32. A method for performing overflow and underflow comparisons with exponent comparison circuitry, comprising the steps of:
selecting an exponent precision underflow/overflow constant from a plurality of exponent underflow/overflow constants;
generating a sum signal and a carry signal from one of said plurality of exponent underflow/overflow constants, a pre-normalized exponent signal and a normalization shift amount signal;
computing an underflow/overflow result from said sum signal and said carry signal; and
transmitting an underflow/overflow condition based upon said underflow/overflow result and an exponent adjust amount signal.

Applicant submits that *Taborn et al.* fails to teach or suggest each of the features of claim 32 set forth hereinabove. Applicant submits that claim 32 is allowable.

Claims 33-37

Claims 33-37 have been newly added via amendments set forth herein. Applicant submits that the pending dependent claims 33-37 contain all features of their respective independent claim 32. Since claim 32 should be allowed, as argued hereinabove, pending dependent claims 33-37 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicant's undersigned counsel.

Respectfully submitted ,

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**

By: 

Ann I. Dennen
Reg. No. 44,651
(256) 704-3900 Ext. 101

Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400